

CLAIMS

1. Form II 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole having substantially the same X-ray powder diffraction pattern as
5 Figure 2, wherein said X-ray powder diffraction pattern is obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K α X-radiation.

2. A crystalline form of 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-
10 1H-benzimidazole characterized by an X-ray powder diffraction pattern expressed in terms of 2 theta angles and obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K α X-radiation, wherein said X-ray powder diffraction pattern comprises 2 theta angles at five or more positions selected from the group consisting of at five or more of the following positions: 7.91
15 ± 0.09 , 17.33 ± 0.09 , 18.23 ± 0.95 , 19.60 ± 0.09 , 21.88 ± 0.09 , 23.24 ± 0.09 , 23.92 ± 0.09 , 25.27 ± 0.09 , 27.70 ± 0.09 , and 29.21 ± 0.09 degrees.

3. 5,6,-Dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole ethanol solvate having substantially the same X-ray powder diffraction pattern as
20 Figure 3, wherein said X-ray powder diffraction pattern is obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K α X-radiation.

4. Ethanol solvate of 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole characterized by an X-ray powder diffraction pattern expressed in
25 terms of 2 theta angles and obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K α X-radiation, wherein said X-ray powder diffraction pattern comprises 2 theta angles at five or more positions selected from the group consisting of at five or more of the following positions: 9.07

± 0.05 , 10.38 ± 0.05 , 15.95 ± 0.05 , 17.72 ± 0.05 , 20.75 ± 0.05 , 21.37 ± 0.05 , 22.96 ± 0.05 , 23.93 ± 0.05 , 25.40 ± 0.05 , and 29.05 ± 0.05 degrees.

5. Form V 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-

- 5 benzimidazole having substantially the same X-ray powder diffraction pattern as Figure 5, wherein said X-ray powder diffraction pattern is obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K α X-radiation.

10 6. A crystalline form of 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole characterized by an X-ray powder diffraction pattern expressed in terms of 2 theta angles and obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K α X-radiation, wherein said X-ray powder diffraction pattern comprises 2 theta angles at five or more positions
15 selected from the group consisting of at five or more of the following positions:
 13.30 ± 0.05 , 18.13 ± 0.05 , 18.78 ± 0.05 , 20.41 ± 0.05 , 21.75 ± 0.05 , 23.02 ± 0.05 , 26.87 ± 0.05 , 28.34 ± 0.05 , 28.55 ± 0.05 , and 30.22 ± 0.05 degrees.

7. A composition comprising an admixture of two or more forms or solvates of
20 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole according to any of claims 1-6.

8. A composition comprising Form II 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole according to Claim 1 and amorphous 5,6,-dichloro-2-
25 (isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole.

9. A composition comprising Form I 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole having substantially the same X-ray powder diffraction pattern as Figure 1 and Form V 5,6,-dichloro-2-(isopropylamino)-1- β -L-
30 ribofuranosyl-1H-benzimidazole having substantially the same X-ray powder

diffraction pattern as Figure 5, wherein said X-ray powder diffraction patterns are obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K α X-radiation.

- 5 10. The composition according to claim 9, further comprising Form IV 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole characterized by the X-ray powder diffraction pattern expressed in terms of 2 theta angles and obtained with a diffractometer equipped with a diffracted beam curved graphite monochromator using copper K α X-radiation, wherein said X-ray powder diffraction
- 10 pattern comprises 2 theta angles at five or more positions selected from the group consisting of at five or more of the following positions: 9.29 \pm 0.05, 16.04 \pm 0.05, 18.67 \pm 0.05, 22.06 \pm 0.05, 22.68 \pm 0.05, 23.34 \pm 0.05, 24.40 \pm 0.05, 29.64 \pm 0.05, 30.92 \pm 0.05, and 31.62 \pm 0.05 degrees.
- 15 11. A pharmaceutical composition comprising a compound as claimed in any one of claims 1 to 6 and at least one pharmaceutically acceptable carrier therefor.
12. 5,6,-Dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole as claimed in any one of claims 1 - 6 for use in medical therapy.
- 20 13. Use of 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole as claimed in any one of claims 1 to 6 in the preparation of a medicament for the treatment of a viral infection.
- 25 14. A method for the treatment of a viral infection a human which comprises administering to the human host, an effective antiviral amount of a solvate or crystalline form of 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole as claimed in any one of claims 1 to 6.

15. A process for the production of 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole in an anhydrous crystalline form said process comprising the steps of:

- a) providing 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole in solution either in free base or salt form;
- b) isolating 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole from the solution and optionally removing unbound solvent leaving the 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole in substantially dry form;
- c) treating 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole with a solubilising solvent serving to convert an amount of said optionally dried 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole into said 5,6,-dichloro-2-(isopropylamino)-1- β -L-ribofuranosyl-1H-benzimidazole anhydrous crystalline form; and
- d) isolating said anhydrous crystalline form.